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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/686,123  | 10/14/2003  | Jayshree Seth        | 58659US002          | 7617             |
| 32692   | 7590        | 11/21/2005           | EXAMINER            |                  |
| 3M INNOVATIVE PROPERTIES COMPANY<br>PO BOX 33427<br>ST. PAUL, MN 55133-3427 |             |                      | COLE, ELIZABETH M   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |

1771

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/686,123

Applicant(s)

SETH ET AL.

Examiner

Elizabeth M. Cole

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3 and 5-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 3, 5-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kacher et al, PG Pub 2003/0049407 in view of Schortmann et al, U.S. Patent No. 4,537,819 Kacher et al discloses a disposable cleaning sheet which comprises protrusions having the claimed shape. See figures 7-13. The protrusions can be incorporated into cleaning sheets formed from nonwoven fabrics. See paragraphs 0043-0049. The protrusions can cover from 5-110 percent of the surface area, (paragraph 0060), and can have a height of 0.5-80 mm. See paragraph 0072-0084. The protrusions can be made from the claimed material, (see paragraph 0054). The protrusions can be formed integrally with a sheet of material which corresponds to the claimed strands. See paragraph [h 0105. The strands comprising the integrally extruded protrusions can be affixed to a substrate. See paragraph 0112. The strands would necessarily have a rectangular shape. See figure 1. The substrate can be a nonwoven fabric and can comprise a scrim. The nonwovens can comprise synthetic and natural fibers and comprise carded nonwovens. The nonwoven substrate can have a basis weight of 15-195 grams per square meter. Additives can be added to the nonwoven to enhance the hydrophobicity or hydrophilicity of the nonwoven. See paragraphs 0043-0049. Kacher differs from the claimed invention because Kacher does not teach that the cleaning elements comprising the strips with the protrusions should be embedded in the nonwoven. Schortmann et al discloses an insert which

comprises a plurality of protrusions which is embedded in a nonwoven fabric. The fabric can be formed from either natural or synthetic fibers, and may comprise carded fibers which would not include additional bonding means. The fabric can have the claimed basis weight. See col. 3, line 35 – col. 4, line 48. Schortmann et al teaches that it is advantageous to embed a protrusion supplying material into a nonwoven fabric so that the more abrasive aspects of the protrusions are present on the surface but at the same time the softness and absorbency of the nonwoven fabric also present. See col. 3, lines 15-34. Therefore, one of ordinary skill in the art would have been motivated to embed the protrusion supplying strips of Kacher into the nonwoven fabric by the teaching of Schortmann that this configuration provides the best cleaning absorbing material.

3. Kacher also differs from the claimed invention because while Kacher teaches that strips can be applied to the nonwoven in a variety of configurations, Kacher does not explicitly teach cross-laying the strands. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the particular configuration of strips which provided the best ability to clean surfaces. Note that Kacher discloses that the orientation of the strips and the protrusions is directly related to the cleaning ability of the sheet. See paragraph 0115.

4. Applicant's amendment to the claims reciting that the backing element is formed from substantially continuous strand elements having integrally extruded protrusions is sufficient to overcome the Currie reference since in Currie the element corresponding to the backing element is a meltblown nonwoven. Applicant's amendment is also sufficient

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to overcome the Schortmann reference alone since it does not teach that the backing element comprises continuous strands.

5. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

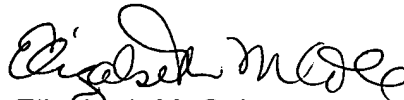
Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole  
Primary Examiner  
Art Unit 1771

e.m.c